

FIG. 1

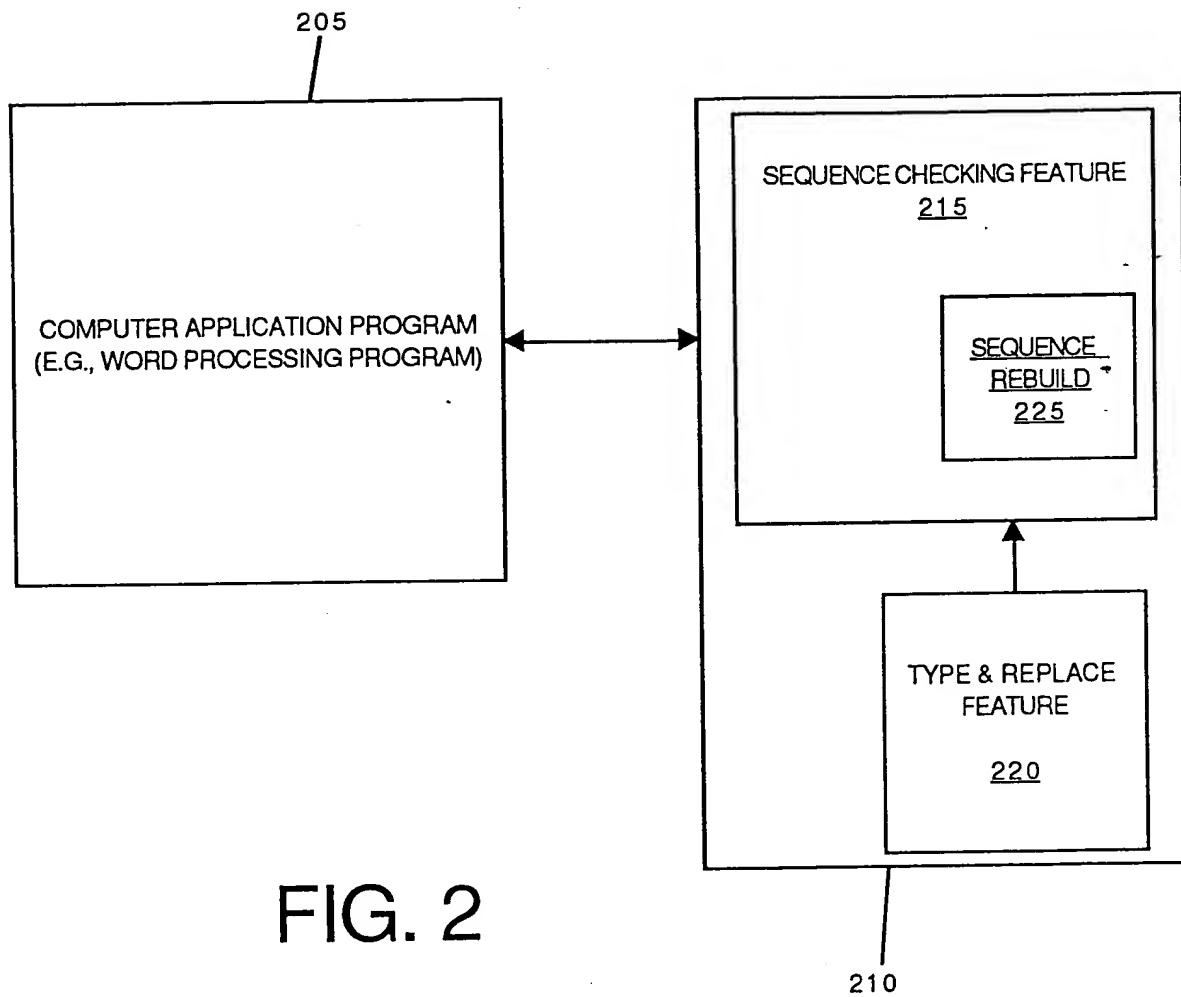


FIG. 2

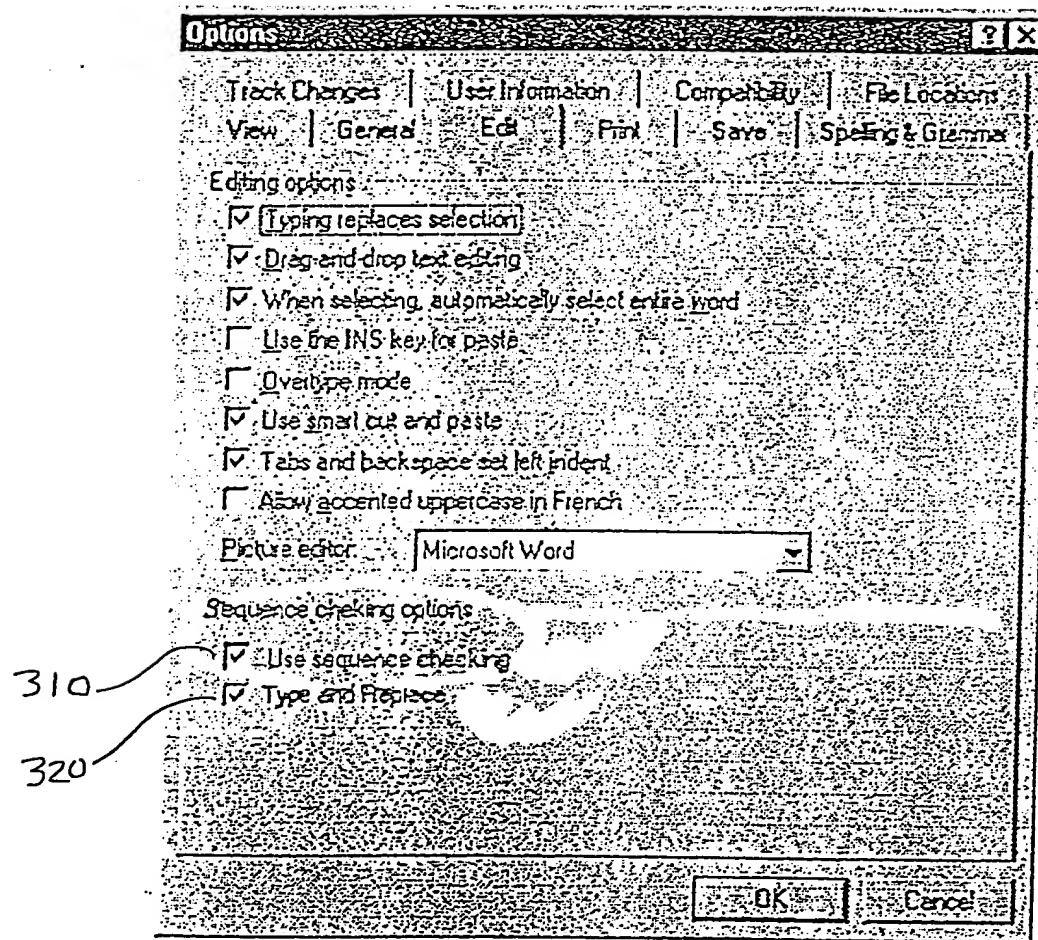


Fig. 3

CHARACTER	CONTEXT	STATE	0	C1R1	Spo	NON	NON	LT	LV1	LV2	LV3	LV4	CONS	TONE	AD1	AD2	AD3	AD4	AV1	AV2	AV3	AV4	BV1	BV2	BD	FV1	FV2	FV3
			0																									
UN3N	0		0	4o	3o	2a	4a	5a	8a	20a	23a	27a	32a															
C2R1	14		0																									
NON1	2		0																									
Spo1	13		0																									
N2	4		0																									
LT	5		0																									
LTF1	6		0																									7a
LTF2	7		0																									7r
LV1	8																											
LV1C	9		0																									
LV1CAV1	10		0																									
LV1CAV1T	11		0																									
LV1CAV3	12		0																									
LV1CAV3T	13		0																									
LV1CFV1	14		0																									
LV1CTPV4	15		0																									
LV1CPV4PV1	16		0																									
LV1CTPV4PV1	17		0																									
LV1CPV4	18		0																									
LV1CT	19		0																									
LV2	20																											
LV2C	21		0																									
LV2CT	22		0																									
LV2S	23																											
LV3C	24		0																									
LV3CAO2	25		0																									
LV3CFV1	26		0																									
LV4	27																											
EV4C	28		0																									
EV4CT	29		0																									
LV4CTPV1	30		0																									
LV4CRV1	31		0																									
EV5	32		0																									
EV5T	33		0																									
EV5V	34		0																									
CPV4	35		0																									
LV3CAO2	36		0																									
CAO1	37		0																									
CAO2	38		0																									
CAO3	39		0																									
LV1LV1	40																											
LV1LV1C	41		0																									
CAD3PV4	42		0																									
CAD3S	43		0																									
CAV1	44		0																									
CAV1T	45		0																									
CAV1AO1	46		0																									
LVLV1CAO2	47		0																									
LVLV1C	48		0																									
CAV2	49		0																									
CAV2T	50		0																									
CAV3	51		0																									
CAV3T	52		0																									
CAV4	53		0																									
CAV4T	54		0																									
CB0	55		0																									
CB1V1	56		0																									
CB1V1T	57		0																									
CB1V1AO1	58		0																									
LVLV1CTPV1	59		0																									
CT	60		0																									
CTPV1	61		0																									
CTPV3	62		0																									
CTPV4	63		0																									
CBV2	64		0																									
CBV2T	65		0																									
LV3CT	66		0																									
LVLV1CT	67		0																									
LV1CTPV1	68		0																									
LV3CTPV1	69		0																									
CPV4PV1	70		0																									

Fig. 4

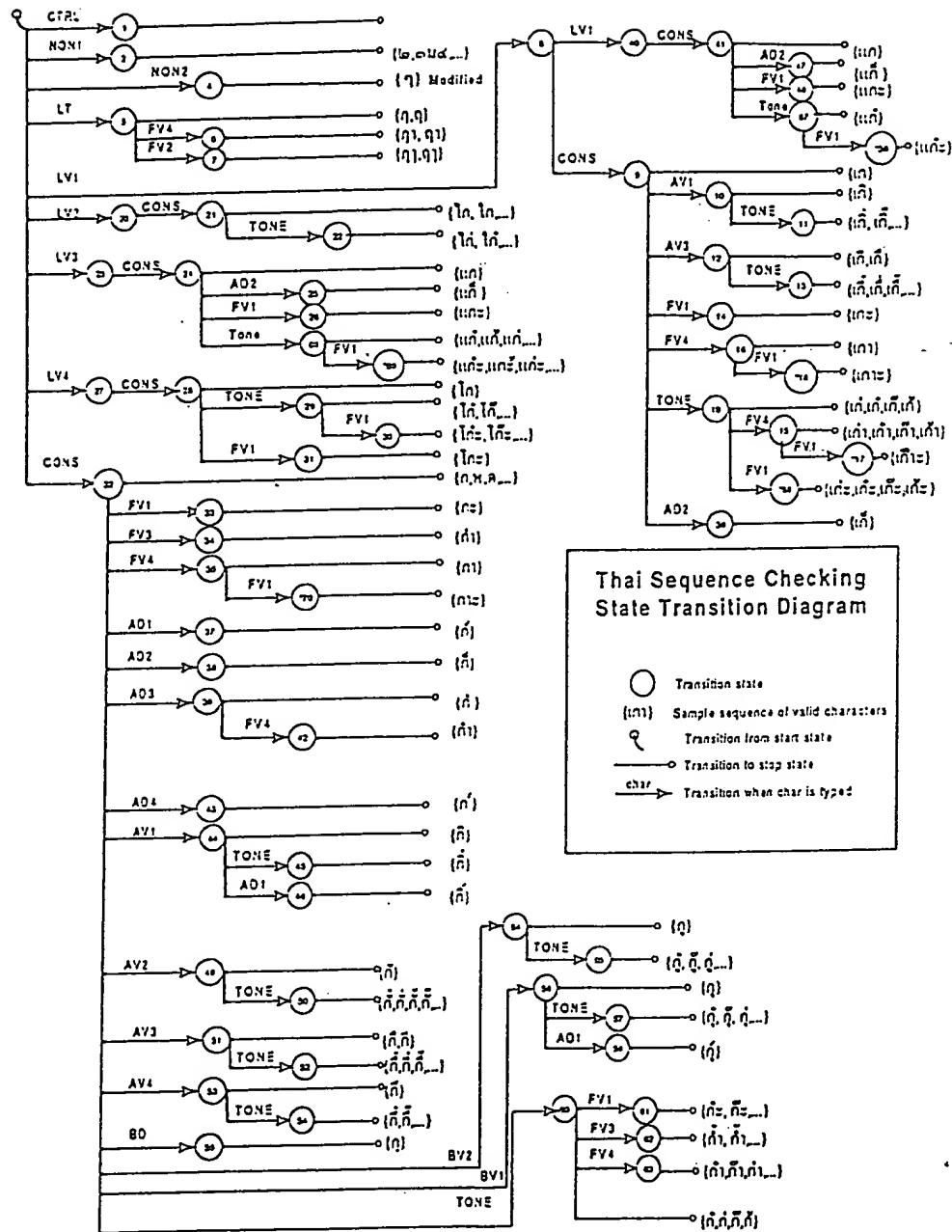
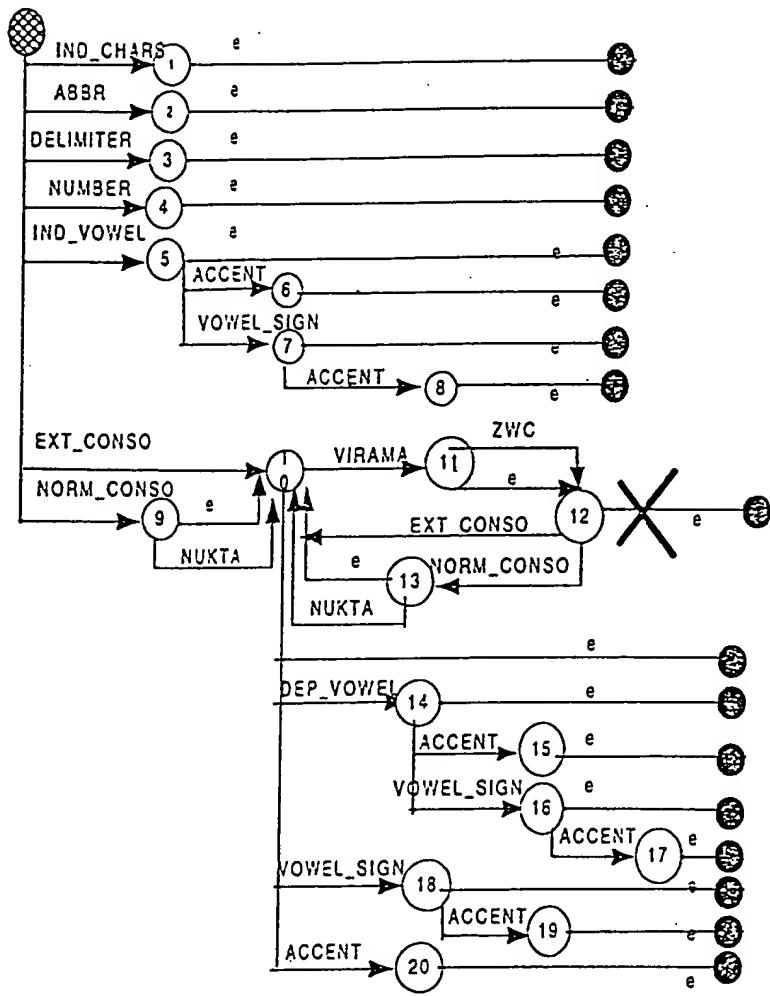


Fig. 4A

CHARACTER		()	ind_c hars	abbr	delimit	number	ind_vo wel	norm_ conso	ext_c onso	virama	nukta	dep_vo wel	vowel _sign	accent	zero_w idth chars
CONTEXT	STATE		lc	Ab	D	Nb	lv	Nc	Ec	V	Na	Dv	Vs	Ac	Zw
initial	0	0	1a	2a	3a	4a	5a	9a	10a						
lc	1	0													
Ab	2	0													
D	3	0													
Nb	4	0													
lv	5	0											7a	6a	
lvAc	6	0											8i1	6r1	
lvVs	7	0											7r1	8a	
lvVsAc	8	0											8r2	8r1	
Nc	9	10								10a					
NcNa	10	0								11a		14a	18a	20a	
NcNaV	11	12													12a
NcNaVZc	12	*						13a	10a						
NcNaVNc	13	10									10a				
NcNaDv	14	0										14r1	16a	15a	
NcNaDvAc	15	0										15r2	17i1	15r1	
NcNaDvVs	16	0										16r2	18r1	17a	
NcNaDvVsAc	17	0										17r3	17r2	17r1	
NcNaVs	18	0										16ff	18r1	19a	
NcNaVsAc	19	0										17i2	19r2	19r1	
NcNaAc	20	0										15i1	19i1	20r1	

Fig. 5



Hindi Sequence Checking
State Transition Graph

Start state
 Stop state
 Transition state
 char → Transition

Fig. 5A

VIETNAMESE SEQUENCE CHECKING
STATE TRANSITION GRAPH AND CHART

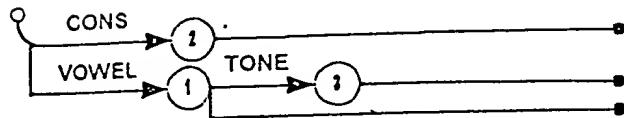


Fig. 6A

CHARACTER		Ø	VOWEL	TONE	CONS
CONTEXT	STATE		V	T	C
initial	0	0	1a		2a
V	1	0		3a	
C	2	0			
VT	3	0		2f	

Fig. 6

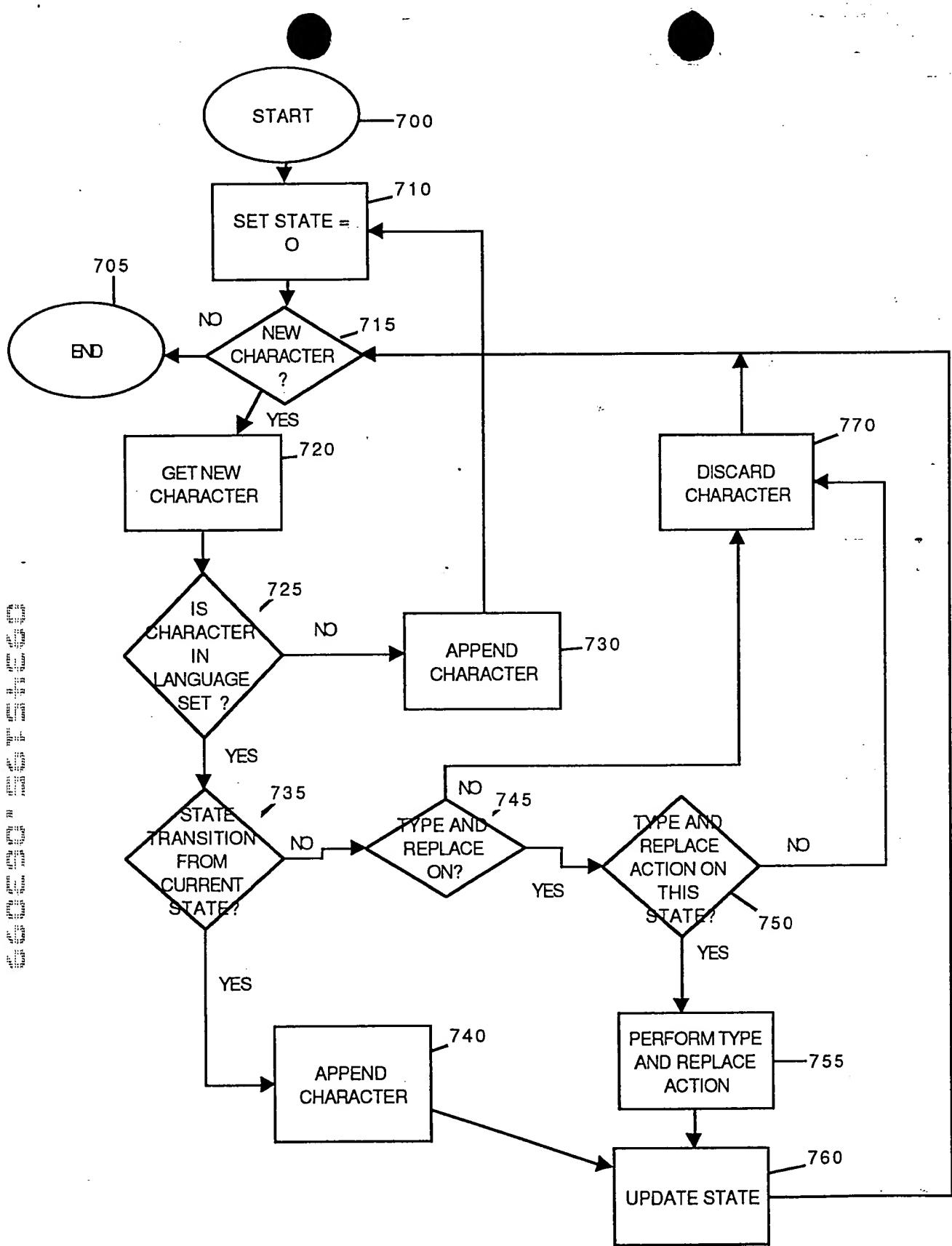


FIG. 7

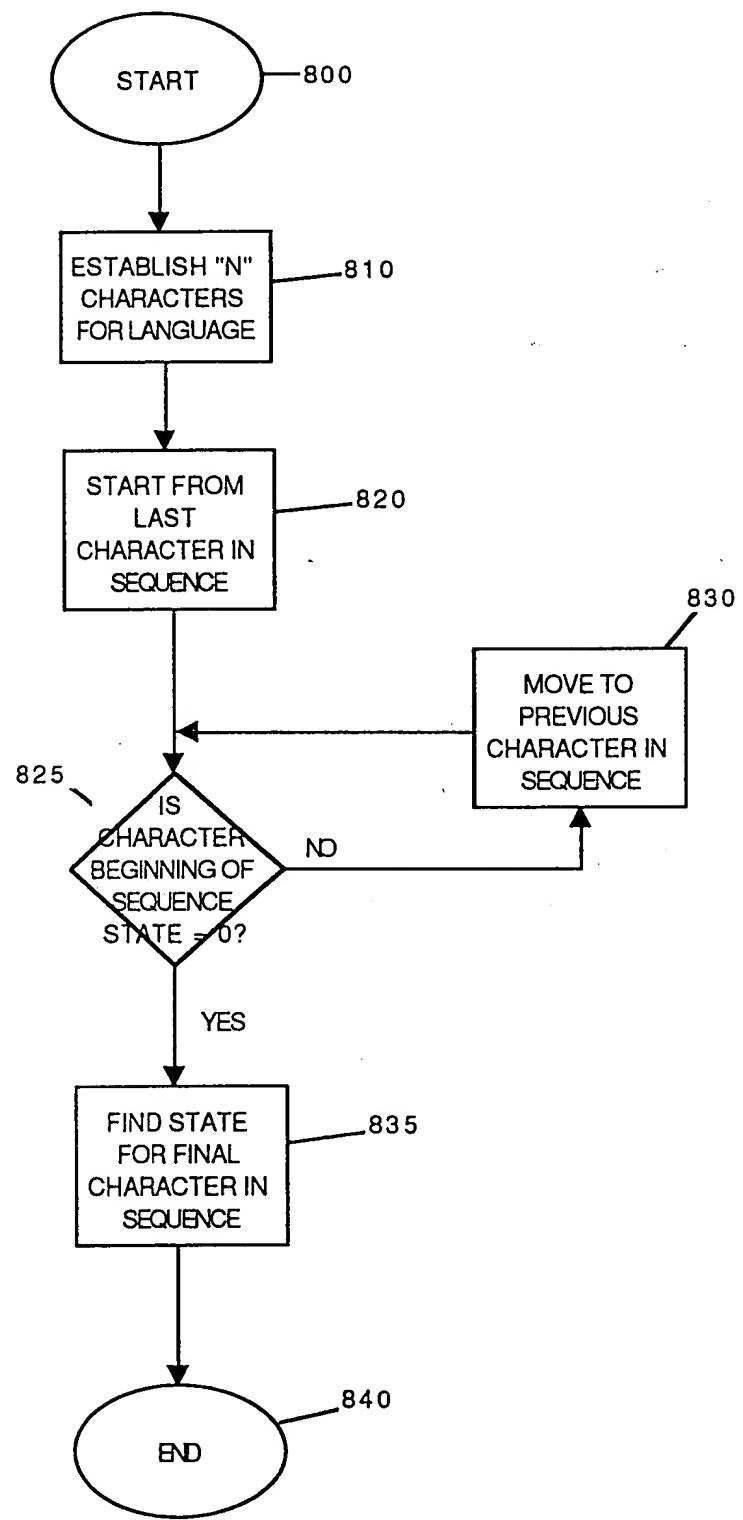


FIG. 8

SYMBOL	INDEX	ACTION	EXAMPLE
Char a	IP	Append the character char	$AB \Rightarrow Ca \rightarrow ABC$
Char I [n]	IP-n where n>0	Insert the character Char at the index location (before the ith character from the right)	$ABD \Rightarrow Ci] \rightarrow ABCD$
d[1]	IP-1	Remove the previous character	$AB \Rightarrow d \rightarrow A$
d _n	IP-n where n>1	Remove the character at the index location	$ABC \Rightarrow d2 \rightarrow AC$
Char r[1]	IP-1	Replace the previous character with Char	$AC \Rightarrow Br \rightarrow AB$
Char rn	IP-n where n>1	Replace the character Char at the index location with the new character	$ADC \Rightarrow Br2 \rightarrow ABC$
C _{xy}		Contextual information (this does not necessarily generate an action) for a possible character composition by the client application. In the Thai transition table "x" has the following values: "a" for composing the last 2 characters into LV3 (Sara-AE) or "b" for composing the last 2 characters into FV3 (Sara-Am). "y" indicates the number of the next transition state.	$ABC \Rightarrow Cx2 \rightarrow AD$ (if x composes B and C into D)

SYMBOL	ACTION	EXAMPLE
FV3r	Substitute the last character with FV3	$\Rightarrow FV3r \rightarrow$

Fig 9A

keyboard input	Output
ક	ક
ા	કા
ક	ક્ક
િ	ક્ક્કી

Fig 10

keyboard input	Output
ક	ક
ા	કા
િ	ક્ક્કી

Fig. 11

keyboard input	Output
ક	ક
ા	કા
ય	ક્ય
િ	ક્યિ
ં	ક્યિં
ો	ક્યો

Fig. 12